

DEPARTMENT OF APPLIED SCIENCES & HUMANITIES

STRATEGIC PLAN 2026-31

Department of Applied Sciences & Humanities

Faculty of Engineering & Technology

Rama University Uttar Pradesh, Kanpur

1. Introduction

The Department of Applied Sciences and Humanities serves as the foundation of engineering and technical education, imparting essential knowledge in core disciplines such as Physics, Chemistry, Mathematics, English and Environmental Sciences. The department plays a pivotal role in shaping the academic, analytical, and communication skills of first-year students, enabling them to transition effectively into their respective professional programs.

With a focus on interdisciplinary learning, the department integrates scientific principles with human values, ethics, and communication skills to ensure holistic development. It is committed to delivering quality education through outcome-based teaching methodologies, modern pedagogical tools, and continuous assessment practices.

The department also actively promotes a research-oriented culture, faculty development, and student engagement through innovative teaching, mentoring systems, and co-curricular activities. By fostering critical thinking, problem-solving abilities, and effective communication, the department contributes significantly to the overall academic excellence and employability of students.

2. Vision: To be a center of excellence in Applied Sciences and Humanities by imparting strong foundational knowledge, fostering research and innovation, and nurturing ethically responsible and globally competent professionals.

3. Mission:

1. To impart knowledge that fosters analytical and problem-solving abilities in science and technology, enabling students to effectively serve industry and society.

2. To promote critical thinking, research aptitude, and interdisciplinary learning among students and faculty.
3. To enhance communication skills, ethical values, and social responsibility for holistic student development.
4. To adopt innovative teaching-learning methods and continuous improvement practices aligned with national and global standards.

4. Objectives of the Institutional Development Plan

- i. Enhance Academic Quality by strengthening teaching-learning processes in Chemistry, Mathematics, Physics, English, and Environmental Sciences through outcome-based and interdisciplinary approaches.
- ii. Promote Research and Innovation by increasing quality publications, funded projects, and collaborative research activities.
- iii. Improve Student Success and Retention through mentoring, remedial support, and skill development initiatives.
- iv. Strengthen Employability and Communication Skills by integrating soft skills, language training, and industry interaction.
- v. Ensure Continuous Quality Improvement through internal audits, feedback systems, and alignment with accreditation standards (NAAC/NBA).

5. Thrust areas:

- **Curriculum and Academic Enrichment**
- **Research and Development**
- **Certificate Courses and Skill Development**
- **Industry and Institutional Collaboration**
- **Extension and Community Outreach**
- **Academic Conferences and Knowledge Exchange**
- **Quality Assurance and Accreditation**

6. Strategic Development Areas

a. Curriculum and Academic Enrichment

Deliver high-quality, interdisciplinary, and outcome-based education.

- i. Strengthen foundational knowledge in core subjects.
- ii. Align curriculum with NEP and industry needs.

Action Plan:

- Revise syllabus periodically.
- Introduce value-added, bridge, and add-on courses.
- Implement OBE practices (CO-PO mapping and attainment analysis).

b. Research and Development

Promotion of high-quality, problem-oriented research and increased number of publications in indexed journals

- i. Foster a strong research culture and innovation ecosystem. Increase quality research publications and funded projects.
- ii. Promote interdisciplinary research.

Action Plan:

- Set annual publication and project targets.
- Conduct workshops on research methodology and grant writing.
- Apply for funding from DST, UGC, AICTE, etc.

c. Certificate Courses and Skill Development

Enhance communication, soft skills, and career readiness and introduction of short-term certificate courses aligned with industry needs

- i. Enhance communication skills, soft skills, and personality development of students.
- ii. Introduce industry-aligned short-term certificate courses for skill enrichment.
- iii. Improve employability and career readiness through practical and hands-on training.
- iv. Bridge the gap between academic knowledge and industry requirements.

Action Plan:

- Conduct communication skills training, GDs, and mock interviews in association with TnP Cell
- Strengthen language lab and personality development programs in association with TnP Cell
- Organize guest lectures, alumni talks, and career counseling in association with TnP Cell

- Design and introduce short-term certificate courses (30–60 hours) in collaboration with industry experts and faculty

d. Industry and Institutional Collaboration

Build strong partnerships with industry and academia.

- i. Enhance practical exposure and research collaboration.
- ii. Bridge gap between academia and industry

Action Plan:

- Establish MoUs with industries and institutions.
- Conduct industrial visits, internships, and expert sessions.
- Promote joint research and consultancy projects.

e. Extension and Community Outreach

To actively engage with the community by applying for societal development, awareness, and sustainable practices.

- i. Encourage student participation in community service and outreach activities.
- ii. Apply academic knowledge to address local societal and environmental issues.

Action Plan:

- Conduct environmental campaigns such as plantation drives, waste management, and water conservation awareness.
- Arrange language and communication skill workshops for school students and local communities.

f. Academic Conferences and Knowledge Exchange

Organization of conferences, seminars, workshops and guest lectures

- i. Promote a culture of academic excellence and knowledge sharing among faculty and students.
- ii. Encourage research dissemination, networking, and collaboration with academicians and industry experts.
- iii. Enhance presentation, communication, and critical thinking skills of students and faculty.

Action Plan

- Organize national/international conferences, seminars, and workshops on emerging topics annually.
- Conduct guest lectures and expert talks by academicians, industry professionals, and alumni.
- Encourage faculty and students to present papers, posters, and participate in conferences.

g. Quality Assurance and Accreditation

Ensure continuous quality improvement and compliance.

- i. Maintain high academic standards.
- ii. Achieve excellence in NAAC/NBA accreditation.

Action Plan:

- Conduct internal academic and administrative audits.
- Collect and analyze stakeholder feedback.
- Maintain proper documentation and submit AQAR.